3.0 DESCRIPTION OF AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the affected environment and the corresponding environmental consequences for the two alternatives. Regulations governing the environmental analysis of Army actions (32 CFR Part 651) identify the affected environment as the set of conditions that "establish the environmental setting against which environmental effects are evaluated". Environmental consequences are likewise defined as the direct and indirect effects of the Proposed Action and its alternatives on the environment.

3.1 Method of Analysis

A central requirement of NEPA is that each resource or area of importance that might be affected by a proposed action be analyzed for impacts resulting from that action. For this analysis, a "hard look" was given to each resource or category deemed applicable in any way to the Proposed Action. Those resources and categories which were deemed pertinent to the WAPTF property transfer were subjected to detailed analysis. Those resources and categories which are not relevant to the WAPTF property transfer are excluded from further analysis.

TABLE 2

RESOURCES CONSIDERED IN ANALYSIS

Resources and Categories	Analyzed in Detail	Excluded from Detailed Analysis
Soils and Geology	**X**	
Water and Drainage	**X**	
Hazardous Materials and Hazardous Waste	**X**	
Land Use and Transportation	**X**	
Socioeconomics	**X**	
Air Quality	**X**	
Noise	**X**	
Public Access	**X**	
Visual Resources	**X**	
Environmental Justice		**X**
Environmental Health and Safety Risks for Children		**X**
Floodplains		**X**
Wetlands and Vegetation		**X**
Cultural Resources		**X**
Wildlife and Fisheries		**X**
Subsistence		**X**

3.1.1 Potential for Significant Impact

NEPA further requires that the impacts identified during detailed analysis must also be measured for "significance". Both the context and the intensity of the impacts from each category of analysis must be considered to determine if the impact is environmentally significant. Under NEPA, a significant impact triggers the need for an EIS. Context and intensity must be analyzed on a project by project basis. The table below describes thresholds to which environmental impacts for the Proposed Action may be compared. Exceeding a threshold could represent a significant impact under NEPA.

TABLE 3
BASELINE FOR SIGNIFICANT IMPACTS

Resources and Categories	Area of Concern	Significant Impact Threshold
Soils and Geology	WAPTF Property	Unchecked erosion or loss of slope stability due to improper construction.
Water and Drainage	WAPTF Property and Nearby Water Bodies and Drainages	Introduction of a pollutant into a water body causing failure to meet water quality standards.
Hazardous Materials and Hazardous Waste	WAPTF Property	Failure to comply with institutional controls set by ADEC.
Land Use and Transportation	WAPTF Property and Adjacent Properties	Failure to comply with ACMP or Municipal zoning. Disruption of Port operation and travel patterns.
Socioeconomics	Municipality of Anchorage	Disproportionate cost burden to Municipality with no off-setting cost benefits. Loss of community cohesion on Government Hill.
Air Quality	WAPTF Property and Immediately Surrounding Area	Violation of National Ambient Air Quality Standards.
Noise	WAPTF Property and Immediately Surrounding Area	Unmitigated sound exceeding surrounding baseline levels.
Public Access	Government Hill Neighborhood (Bluff Drive)	Negative impact to public access of Government Hill neighborhood.
Visual Resources	Government Hill Neighborhood (Bluff Drive)	Unmitigated loss of view shed.

Note: Although some thresholds are designated based on legal or regulatory limits or requirements, others reflect discretionary judgment. Quantitative or qualitative analyses may be used in determining whether, and the extent to which, a threshold is exceeded.

3.2 Issues Excluded from Detailed Analysis

The following issues and categories were deemed to not be relevant to the Proposed Action. They are excluded from further analysis, based on the reasoning presented below.

3.2.1 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs federal agencies to identify and address any disproportionately high and adverse environmental effects of its programs, policies, and activities on minority populations and low-income populations. There are no foreseeable environmental justice impacts resulting from the Proposed Action.

3.2.2 Environmental Health and Safety Risks for Children

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children. There are no foreseeable environmental health and safety risks for children resulting from the transfer of the WAPTF property.

3.2.3 Floodplains

Executive Order 11988, Floodplains Management, seeks to avoid impacts associated with the occupancy and modification of floodplains. According to the most recent Flood Insurance Rate Maps available from the Federal Emergency Management Agency, the WAPTF property is not within either a 100-year or 500-year flood plain (FEMA, 1990).

3.2.4 Wetlands and Vegetation

The transfer of the WAPTF property does not involve any construction or associated impacts to wetlands or vegetation.

3.2.5 Cultural Resources

According to the EA completed for the Port's Road and Rail Extension Project (ICRC, 2004), existing records list no cultural resources in the area affected by that project. Almost the entire area of the WAPTF property has been disturbed and reworked by the activities of man, and no record of encountering cultural resources exists. The Proposed Action does not warrant any further analysis of cultural resources.

3.2.6 Wildlife and Fisheries

The Proposed Action does not involve any construction impacts to wildlife and fisheries. There are no threatened or endangered species or species of concern within approximately a one mile radius of the WAPTF property.

3.2.7 Subsistence

Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA) requires federal agencies to evaluate the potential impact that proposed actions may have on

customary rural subsistence practices. The WAPTF property is located in an area of industrial and urban use. There are no subsistence opportunities that would be affected by the Proposed Action.

3.3 Specific Regulatory and Permit Requirements

The Proposed Action does not involve any additional regulatory or permitting requirements, other than those that are being fulfilled by this EA and associated documentation. The reasonably foreseeable improvements that would follow completion of the property transfer, as described above in Section 2.2.1, may involve minor additional permitting and regulatory requirements at construction.

There are no other specific regulatory or permit requirements needed for the Proposed Action to be carried forward.

3.4 Issues Analyzed in Detail

The following issues and categories were deemed relevant to the Proposed Action. They are subjected to detailed analysis below to determine the impacts they may undergo as a result of the WAPTF property transfer.

3.4.1 Soils and Geology

Anchorage lies on a triangular shaped lowland that is bounded by Knik Arm to the north, Cook Inlet to the west, Turnagain Arm to the south, and the Chugach Mountains to the east. This area, termed the Anchorage Lowland, is part of the larger Cook Inlet-Susitna geologic basin, as defined by the Chugach, Talkeetna, and Alaska Mountain Ranges. Within the basin, bedrock is generally overlain by thick sediments of glacial, fluvial (from a river), and marine origin. In the area of the WAPTF property and the adjacent Port, a low lying tidal marsh soil deposit, augmented by artificial fill, is surrounded by bluffs composed of glacial and fluvial sediments. Soil conditions at the WAPTF property are described in more detail below.

The Cook Inlet-Susitna basin is in a very active seismic zone that is affected by several subsurface faults or faulting zones. Instability and occasional movement along these faults accounts for the regular earthquake activity recorded in the Anchorage area. The most notable example of this activity is the 1964 Great Alaska Earthquake. There is the potential for lateral and/or vertical ground movement during future earthquake events in Anchorage.

Affected Environment

The WAPTF property may be subdivided into three functional areas, as characterized by topography and associated soil type. These characteristics are key factors influencing potential future land use and development at the property. The three functional areas are:

- Upper Bluff Area (UBA)
- Slope Deposits Area (SDA)
- Former Tidal Flats Area (FTFA)

The UBA, SDA, and FTFA were first described in the 2003 ROD for the site (ADEC and DESC, 2003). Figure 4 depicts the functional areas of the site and their related features. Each functional area is described below.

UBA: The UBA occupies the gently sloping, relatively flat ground at the higher elevations of the WAPTF property. It is generally bounded by the portion of the southern property boundary along Bluff Road, by the entire eastern property boundary, and by the uppermost extent of the SDA (Figure 4).

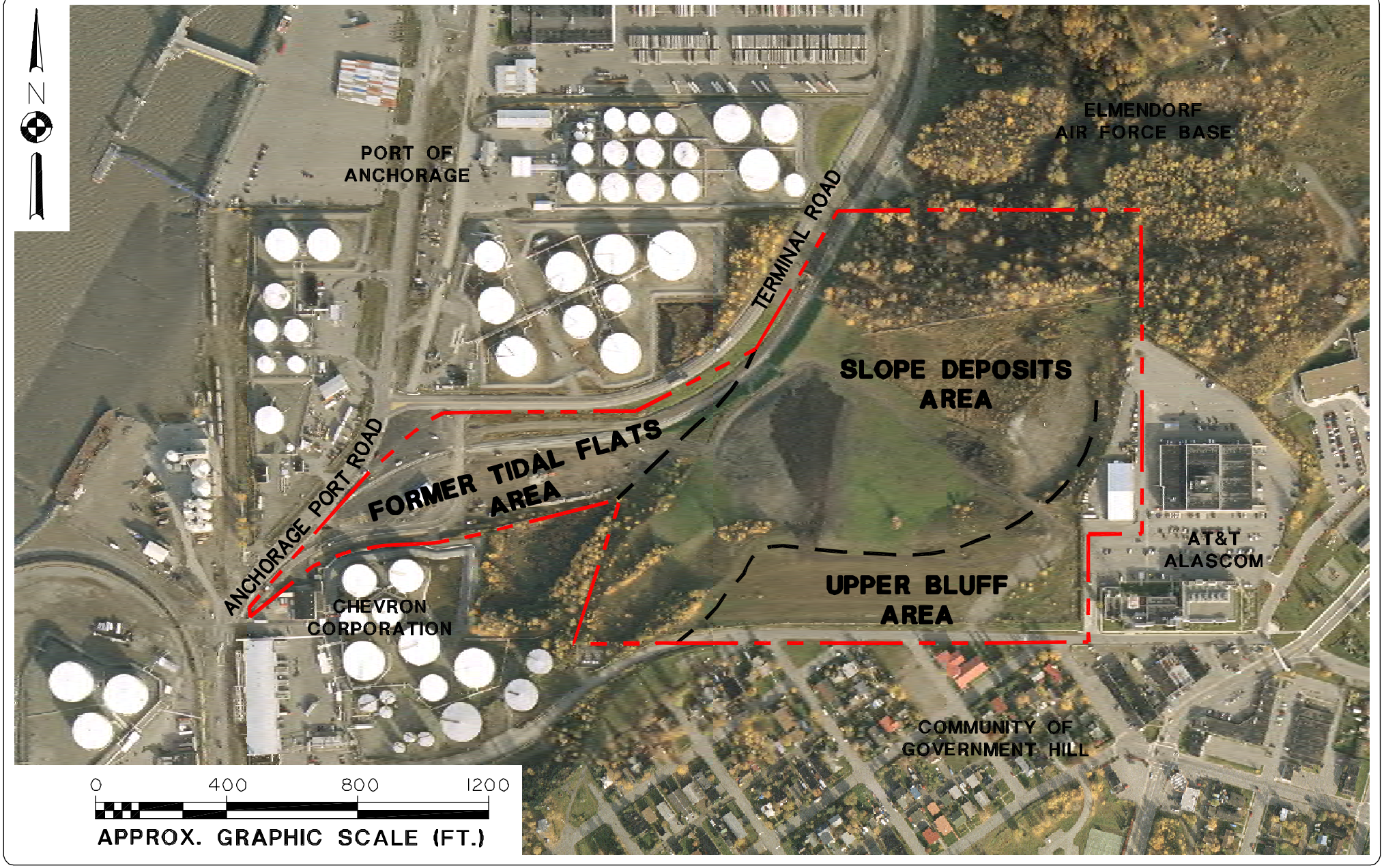
Soil deposits within the UBA consist of a mixture of glacial and fluvial terrace deposits, artificial fill, landslide deposits, and to a lesser extent deposits of the marine sediments known as the Bootlegger Cove Formation. The glacial and fluvial terrace deposits consist primarily of silt, sand, and gravel. In previously unexcavated areas these deposits can be overlain by less than four feet of organic silt, discontinuous peat, and organic surface soils. The terrace deposits are generally underlain by the Bootlegger Cove Formation at depths ranging from 15 feet to 65 feet (Updike, 1986).

Artificial fill deposits primarily consist of clay, silt, sand, and gravel periodically laid down by man's activities in the area. The sources of the artificial fill deposits are generally local, from the surrounding glacial and fluvial sand and gravel, the 1964 Great Alaska Earthquake 4th Avenue landslide, and the Ship Creek floodplain. The deposits are generally nonstratified and artificially compacted; occasionally with the addition of chemical or petroleum based binders. Thickness ranges from a few inches to less than five feet (Updike, 1986).

A small outcropping of the Bootlegger Cove Formation is mapped within the forested northeastern portion of the WAPTF property. The Bootlegger Cove Formation typically consists of silt and clay, and sand with scattered gravel (Updike, 1986).

SDA: The SDA includes the middle portion of the WAPTF property that is best described as sloping, hummocky topography situated between the UBA and the FTFA (Figure 4).

Soil deposits within the SDA have been mapped as landslide deposits (Updike, 1986). Additional activity and development has occurred on the WAPTF property since the mapping was published. Based on historical information and interpretation of aerial photography, it appears much of the SDA has been reworked. Artificial fill currently comprises a significant portion of the surface soil deposits within the SDA. Artificial fill is typically similar in nature and source to that encountered in the UBA, and its thickness ranges from a few inches to less than five feet (Updike, 1986).



WHITTIER–ANCHORAGE PIPELINE TANK FARM PROPERTY

2005
AERIAL PHOTO

FIGURE 4
SITE FUNCTIONAL AREAS

Landslide deposits primarily consist of clay, silt, sand, and scattered gravel. The landslide deposits are interpreted as chiefly occurring prior to the 1964 Great Alaska Earthquake, and are derived from the Bootlegger Cove Formation as well as from the glacial and fluvial terrace deposits located uphill (Updike, 1986).

FTFA: The FTFA occupies the generally flat-lying ground at the lower elevations of the site (Figure 4). Historical and ongoing development of the Port has resulted in large amounts of artificial fill material being deposited in this area.

Primary surface soil deposits within the FTFA have been mapped as artificial fill and tidal marsh deposits. Artificial fill is typically similar in nature and source to that encountered in the UBA and the SDA, and its thickness ranges from a few inches to less than five feet (Updike, 1986).

Tidal marsh deposits largely consist of layered silt and fine sand containing abundant organic material (Updike, 1986). The location of these deposits typically coincide with the areas designated as wetlands within the low lying flat or depressed areas within the northwestern perimeter of the WAPTF property.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

Under the Proposed Action, reasonably foreseeable improvements accompanying the property transfer would include the grading, drainage, and paving upgrades planned for the area just east of the Checkpoint 3 security facility (Figure 2), as well as the construction of a new administrative office building. As detailed in Section 2.2.1, the construction work involved would impact roughly 1.6 acres in the case of the drainage and paving improvements, and approximately 3.5 acres in the case of the administrative building. Temporary minor impacts to soils would result during construction of the planned improvements. The land in question is already cleared and roughly graded, so excavation and placement of fill would be limited to that necessary to provide a structural pavement section, to facilitate installation of subsurface storm drains and related utilities as appropriate, and to excavate and construct a suitable foundation for the office building described in Section 2.2.1. If contaminated soils are encountered during construction, ADEC requirements and institutional controls would be followed in removing the soils for off site remediation. The areas in question have been thoroughly reworked and previously disturbed by the actions of man, and no new areas of previously undisturbed ground would be developed. There are no known geologic limitations to the proposed improvements in these areas, apart from the geotechnical design considerations of constructing an office building on the landslide deposits of the SDA.

Alternative 2: No Action

Under the No Action alternative, the WAPTF property would not be conveyed to the Port, and no changes to the existing soils and geology would occur. No impacts would be anticipated.

3.4.2 Water and Drainage

Affected Environment

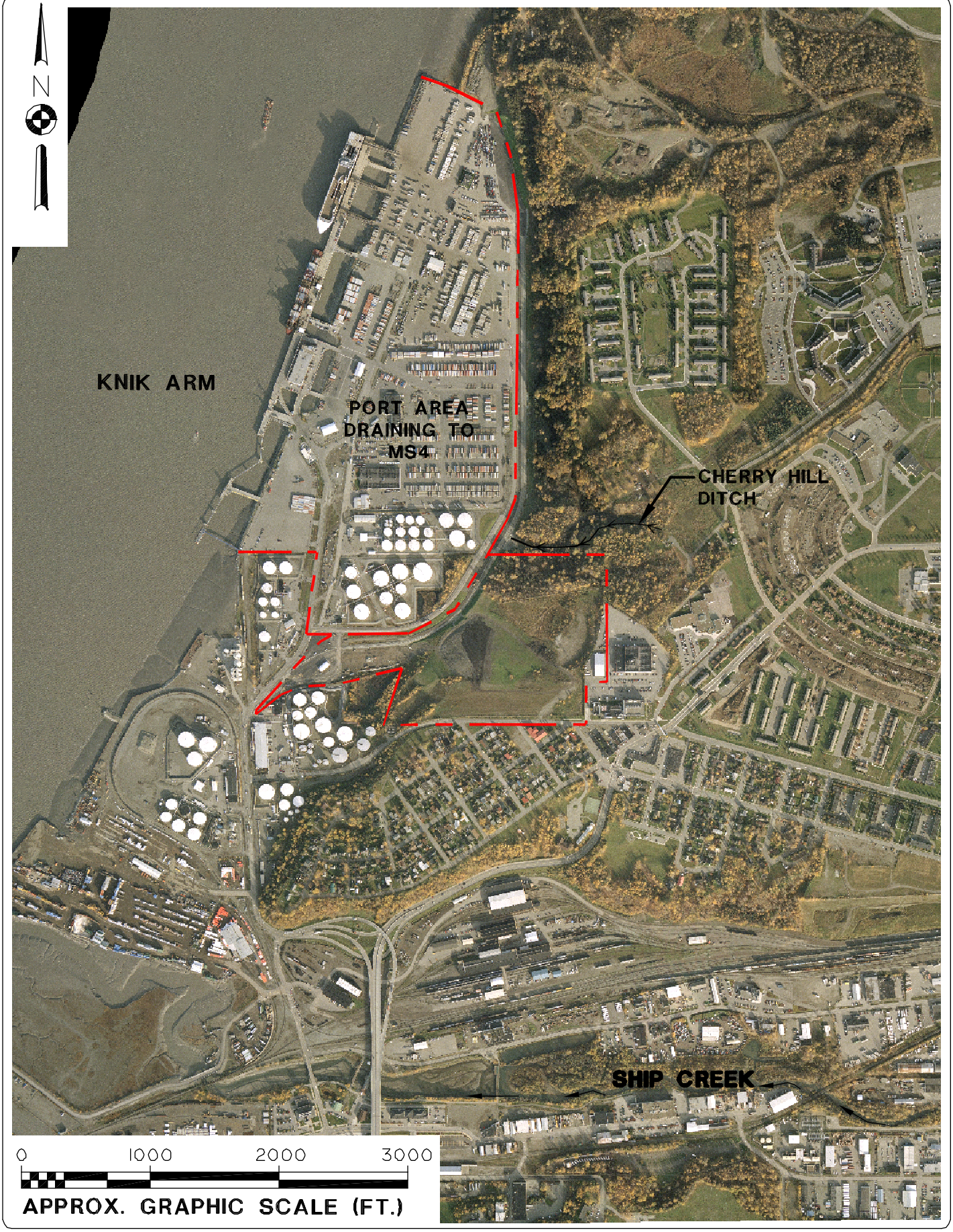
Major natural surface water bodies occur outside of the Port and include Ship Creek, approximately one mile south of the WAPTF property, and Knik Arm of Cook Inlet, approximately 0.5 miles to the west. The Cherry Hill drainage ditch provides storm runoff for approximately 80 percent of Elmendorf Air Force Base (ICRC, 2004). Drainage from Cherry Hill ditch and storm water generated from the Port itself both feed the Port's Municipal Separate Storm Sewer System (MS4), which ultimately drains into Knik Arm (Figure 5). The Port's MS4 currently operates under a National Pollution Discharge Elimination System (NPDES) permit. It complies with specific pollution prevention measures during construction of upgrades and during general operations. A Storm Water Pollution Prevention Plan (SWPPP) is implemented and updated as part of a Storm Water Management Program each year. Upon completion of the Proposed Action when the Port assumes ownership of the WAPTF property, the property would be added to the NPDES permit coverage of the Port.

Groundwater at the WAPTF site occurs primarily in two zones: a deep confined aquifer below the Bootlegger Cove Formation and a near-surface unconfined zone perched above the Bootlegger Cove Formation. The deeper confined aquifer is not in direct communication with the shallow perched groundwater. The movement of perched groundwater generally mimics the surface topography, and migration is towards surface drainages that eventually discharge into Knik Arm. At the WAPTF property, perched groundwater underlies about two-thirds of the site, with the greatest saturated thickness (up to 31 feet) along the eastern portion of the property (ADEC and DESC, 2003). The shallow perched groundwater is not suitable as drinking water and is not currently used for private/public drinking or domestic purposes. The perched groundwater is not within a recharge area for a private/public drinking water well, a well protection area, or a sole source aquifer. Additionally, the perched groundwater within the FTFA is brackish and is unfit for human consumption (ADEC and DESC, 2003).

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

The reasonably foreseeable improvements associated with the Proposed Action would include grading, drainage, and paving on a small scale just east of the security Checkpoint 3, as well as the construction by the Port of an administrative office complex



WHITTIER–ANCHORAGE PIPELINE TANK FARM PROPERTY

2005
AERIAL PHOTO

FIGURE 5
WATERBODIES AND DRAINAGES

on the SDA and parking areas on the UBA. As with all construction projects undertaken at the Port, the proposed work would be required to include controls for storm water quality, and adherence to the Port's NPDES permit and SWPPP. A construction-phase SWPPP would be prepared in accordance with U.S. Environmental Protection Agency (EPA) guidelines, outlining the proposed storm water quality control measures and best management practices that would be used to prevent sedimentation and the discharge of pollutants to the MS4 during construction. With the implementation of these procedures, the Proposed Action would have no adverse impacts on water quality. The installation of new subsurface storm drains would facilitate the drainage from Cherry Hill ditch in reaching Knik Arm.

Alternative 2: No Action

Under the No Action alternative, the WAPTF property would not be conveyed to the Port, and no changes to the existing water and drainage conditions would occur. No impacts would be anticipated.

3.4.3 Hazardous Materials and Hazardous Waste

This section addresses the issues of hazardous materials and hazardous waste. The WAPTF property is an ADEC regulated contaminated site that is currently in the remediation phase. The environmental history and intended future monitoring of the site, with respect to subsurface contamination, are critical items to be addressed in the successful completion of the Proposed Action.

Affected Environment

The WAPTF was historically used to receive, store, and distribute fuel to Elmendorf Air Force Base and other military installations in southcentral Alaska. It operated in this general capacity for approximately 54 years, from 1942 until its closure in 1996. Twenty-two (22) aboveground and underground storage tanks were used on-site to facilitate these operations, as were numerous pipelines and hydrant fueling systems. There is record of one active underground fuel pipeline that still exists on the WAPTF property. This is the Elmendorf South Jet POL pipeline, which supplies jet fuel to EAFB from Chevron's aboveground storage tanks located at their Port facility. Numerous other pipelines have either been removed or abandoned in place by purging and capping. Their general locations and current status are described in the SEBS recently completed for the site (R&M, 2006). In addition to the bulk fuel tanks and associated infrastructure, the WAPTF property also contained a fuel transfer pump house, waste collection area, drum dump area, an area for dumping sludge derived from tank cleaning, a hazardous materials storage area, railcar loading rack, and a truck loading rack. All of these appurtenances and tank farm operational equipment have since been removed from the site.

A total of 27 releases of arctic grade diesel fuel, JP-4, JP-5, unleaded regular gasoline, slop fuel (waste fuel contaminated by chemicals, biological degradation, etc.), and transformer fluid were documented at the WAPTF property between 1960 and 1989.

Releases of fuel that were also documented at the nearby Tesoro, Texaco, and Chevron facilities may have impacted the former truck/railcar loading rack area, which is located in the FTFA at the western extent of the WAPTF property. Thirty-thousand (30,000) tons of soil with contaminant concentrations above ADEC Method One, Category C cleanup levels (18 AAC 75.341) was excavated from the WAPTF property and replaced with clean fill. Petroleum-contaminated soil in the smear zone, the soil horizon influenced by seasonal groundwater fluctuation, remains in place. Tanks, waste storage areas, and buildings formerly on the WAPTF property that were used for fueling support functions have all been removed (ADEC and DESC, 2003). Extensive cleanup operations have been undertaken to remove and treat contaminated soil, and to monitor contaminated groundwater. More detail may be found in the ROD (ADEC and DESC, 2003), in the SEBS completed for the site (R&M, 2006), and in past site characterization and cleanup reports.

Within the Port, spills and releases of petroleum hydrocarbons have been documented over time at each of the bulk fuel facilities. These spills resulted from broken valves, overfilling of trucks, tanks and railcars, leaking pipelines and other sources. Documented petroleum hydrocarbon impacted soils and/or water are located within the parcels leased by each of the bulk fuel facilities within the Port.

The neighboring EAFB is listed on the National Priorities List, Site # AK8570028649. According to the SEBS completed for the WAPTF property (R&M, 2006), the Air Force has identified 33 parcels for investigation under Superfund status. Soil and shallow groundwater beneath the various landfills, fuel storage facilities, training areas, and maintenance hangars located on EAFB have been contaminated with petroleum hydrocarbons and other fuel contaminants, volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, asphalt and associated chemicals, and heavy metals including lead.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

Under the Proposed Action, the WAPTF property would be conveyed to the Port, and some of the responsibility for existing contamination on the site may also pass to the Port. In accordance with the terms of the ROD, the legal documents for the WAPTF property transfer would ultimately dictate how much responsibility each of the two parties (the Port and the Army) would assume for environmental contamination liabilities of the site. Under the new ownership, institutional controls would remain in place to address potential human health and environmental risks associated with the property. These controls currently include fencing, with warning signs posted to limit access to the site. Potential future development at the site may include moving the fencing to a more appropriate location, in accordance with Port security measures and the requirements of the ROD. Deed restrictions would remain in place that prohibit the use of perched water as a source of potable water, and that place conditions for the handling of contaminated

soils on excavation activities on the FTFA or SDA. Deed restrictions will remain in place until site soil cleanup levels are achieved.

The ongoing groundwater monitoring and any future surface water monitoring would be the responsibility of either the Army or the Port, in accordance with the ROD and the terms of the eventual transfer documentation. The terms of the ROD would continue to require the new owners, the Port, to notify ADEC of any conveyance of title, easement, or other interest in the site to other agencies of the United States, to private parties, or to state and local governments at least ninety days prior to such conveyance (ADEC and DESC, 2003).

The Defense Energy Support Center (DESC), the entity currently handling the environmental stewardship of the WAPTF property, has applied to ADEC to grant a finding of No Further Remedial Action (NFRA). This was granted by ADEC on 5 June 2006. The terms of that document would be met by the Army or the Port, as dictated by the ROD and the eventual terms of the transfer documentation upon completion of the Proposed Action.

The site-specific risk assessment performed by ADEC and DESC identified dermal exposure to DRO contamination in the groundwater within the SDA as the only pathway by which risk to human health exceeds ADEC acceptable risk levels (ADEC and DESC, 2003). Until further determination is made by ADEC, future site construction workers would need to be protected from prolonged dermal exposure to perched groundwater within the SDA.

Within the FTFA the shallow perched groundwater is brackish and has also been impacted by fuel spills. Within the SDA and UBA, the shallow perched groundwater has been impacted by fuel spills and contains residual petroleum, oil and lubricant contaminants. The groundwater in all three of these functional areas would still be considered unfit for human consumption and unfit (unless treated) for general construction use.

Future construction plans involving the WAPTF property would need to include procedures to screen any excavated soils and provide for soil remediation if contamination is detected. In particular, any excavation activities associated with the grading, drainage, and paving improvements planned for the area east of Checkpoint 3 or the construction of the new administrative office building on the SDA and parking areas on the UBA (see Section 2.2.1) would need to follow the above protocols.

The contaminated sites within the existing boundaries of the Port are being actively managed with ADEC oversight. The same level of environmental stewardship and diligence the Port currently practices on its existing holdings would be continued on the WAPTF property upon completion of the Proposed Action.

There are no EAFB contaminated sites adjacent to the WAPTF property. Therefore, EAFB contamination and environmental issues would have no impact on or from the Proposed Action.

Alternative 2: No Action

Under Alternative 2, the WAPTF property would not be conveyed to the Port. The Army would not relinquish its ownership and environmental stewardship responsibility for the property. Institutional controls set forth in the ROD would remain in place, governing how the property might be utilized to meet future USARAK needs.

3.4.4 Land Use and Transportation

Land use and transportation issues within the context of this EA refer specifically to the present and reasonably foreseeable future use of the WAPTF property. Issues associated with land use include zoning, ownership, compliance with institutional controls set by ADEC, and compliance with the Alaska Coastal Management Program (ACMP). The institutional controls are described above in Section 3.4.3, and are set forth in detail in the 2003 ROD (ADEC and DESC, 2003) for the site. Issues associated with transportation include the preservation of the movement of people and goods in the area.

Affected Environment

The WAPTF property is currently a non-contiguous part of the USARAK Fort Richardson military reservation. It has not been actively used for military purposes since fuel storage, staging, and dispensing operations ceased in 1996. From 1996 until the present time, environmental cleanup and site remediation activities have dominated the use of the WAPTF land. The area is currently surplus to the needs of USARAK, and it retains a zoning designation by the MOA of I-2, for heavy industrial use (MOA, 2006).

The WAPTF property lies within the boundaries of the MOA coastal district, as designated by the ACMP. As such, any actions on the property that would require resource agency authorizations would need to be reviewed for consistency with the enforceable policies of the ACMP. A consistency review would typically be coordinated through the Alaska Department of Natural Resources, Office of Project Management and Permitting (OPMP).

The Port borders the WAPTF property directly to the north and west. It serves as the northern terminus of an intermodal transportation network within the MOA. A single railroad-road corridor connects the Port with the Anchorage central business district. From the central business district, road and rail systems provide an extension of Port access to the Anchorage International Airport. In addition, the road system connects with Alaska's National Highway System and the railroad system with the Alaska rail-belt (ICRC, 2004).

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

Under the Proposed Action, ownership of the WAPTF property would pass from USARAK to the Port. It is expected that zoning for the site would remain at the current designation of I-2 for heavy industrial use, which is consistent with the adjacent portion of the Port directly to the north. The existing zoning would therefore be consistent with supporting potential future expansion by the Port on the WAPTF property. The planned grading, paving, and drainage improvements described in Section 2.2.1 would be consistent with the intended land use and existing zoning designation of the WAPTF property. Similarly, the planned administrative office building described in Section 2.2.1 would also be consistent with the existing designation of I-2. The Proposed Action would not impact the land use and zoning requirements of the WAPTF property.

The OPMP was contacted as part of the scoping process for this EA. They agreed with the assertion that since the Proposed Action does not require any resource agency permits or authorizations, no review for consistency with the ACMP is needed. Therefore no impacts to the coastal zone are anticipated.

The Proposed Action would have the positive impact of enhancing Port operations in the following ways. First, the WAPTF property would provide much needed, similarly zoned real estate to the Port to facilitate potential expansion and economic development in the future. Second, an immediate benefit would be the preservation of capital improvements made as part of the Road and Rail Extension project, by implementing the drainage and paving improvements described in Section 2.2.1.

There are no perceived impacts to transportation networks resulting from the Proposed Action.

Alternative 2: No Action

Under the No Action alternative, the WAPTF property would remain under the ownership of the Army. As the property is currently surplus to USARAK's needs, land use would likely continue, as it has since 1996, with a focus on environmental remediation. The property would remain unavailable for future utilization by the Port.

3.4.5 Socioeconomics

The following discussion focuses on the general economic and social impacts that may occur as a result of the Proposed Action. The most recent demographic profile information for the Anchorage area is from the 2000 U.S. Census (USCB, 2000). More recent demographics cited herein are based on available data estimated by the U.S. Census Bureau (USCB) and the Alaska Department of Labor. Statistics concerning USARAK operations in Alaska are as cited.

Affected Environment

As of 2004, the USCB and the Alaska Department of Labor estimated that the MOA had a population of 277,498 persons, representing an annual growth rate of 1.6 percent each year since the year 2000 census. Anchorage is the largest city in the state, by population and area, and is the center of commerce for the state. Oil and gas industries, finance and real estate, transportation, communications, and government agencies have headquarters in Anchorage. The MOA has a relatively stable economy that has become more diversified in recent years, with decreasing dependency on oil and gas, and increasing emphasis on transportation, construction building infrastructure, and services (ICRC, 2004).

USARAK has historically played, and continues to play, a very central role in the economy of Anchorage and Alaska in general. Total payroll and non-payroll expenditures for annual statewide U.S. Army operations in Alaska contribute over $1.27 billion to the economic activity for the State of Alaska (Department of Defense, 2005). Of the 62,000 acres of land occupied by USARAK at Fort Richardson near Anchorage, the WAPTF property transfer concerns only 48.2 acres, or 0.08 percent.

The Port is an essential part of Alaska's economy, and consequently that of Anchorage, as it handles 90 percent of the consumer goods coming into and going out of the state. It also facilitates petroleum deliveries from various refineries on the Kenai Peninsula and in Valdez, and it generates direct and indirect employment opportunities for a broad cross-section of workers including stevedores, truckers, railroaders, and warehousemen. The Port provides vital staging and support for development activities. An analysis of the Port's economic impact in 1998 determined that the Port contributed $15.6 million in personal income annually through employment and an estimated total of $725 million to Alaska's gross state product (VZM, 1999).

Socially, the community of Government Hill figures prominently in the analysis of potential impacts stemming from the Proposed Action. Government Hill is one of the older neighborhoods in Anchorage. The Government Hill neighborhood has been situated adjacent to industrial use areas, i.e. the Port and the WAPTF, for over 50 years. The community has maintained its integrity over the decades, despite continual development and expansion along its borders. Although it may not be a historic district (KABATA, 2005a), the integrity of the area as a community calls for an analysis of potential impacts from the Proposed Action.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

In terms of real estate, the conveyance of the WAPTF property to the Port would involve a negligible change to the overall presence of the Army in Alaska. USARAK would continue to be a major social and economic force in Anchorage. Economic benefits for the Army would be realized from the completion of the property transfer, as USARAK

would divest itself of land that has become surplus to its needs. It would also be able to pass the cost of continuing environmental stewardship and any continued environmental monitoring of the property to the Port.

The MOA has considered the Port's expansion to be one of the city's top priorities (ICRC, 2004). Evidence of this fact is the ongoing expansion projects being conducted as part of the Port's intermodal expansion. Successful completion of the Proposed Action would facilitate future economic development at the Port by freeing up land in an area that is currently not available for use.

The Port, as an entity of the MOA, may have to absorb some or all of the cost of any future environmental stewardship and monitoring of the WAPTF property, in accordance wit the terms of the ROD and the eventual transfer documents. In addition, future construction projects that are undertaken on the site would need to factor in the additional cost of environmental procedures and possible soil and groundwater remediation (see Section 3.6). These costs, as well as deductions for existing easements on the property, may be considered as part or all of the consideration required by the Army for conveying the WAPTF property to the Port. Therefore the MOA would only have to absorb a smaller upfront market price for the property, a price which reflects the environmental encumbrances that exist. The remaining costs of environmental stewardship of the WAPTF property would be incremental over time, which is to the immediate benefit of the Anchorage economy. Therefore the economic impact to Anchorage from the Proposed Action would be minor.

The Government Hill Community Council (GHCC) has been engaged in the discussion of the property transfer from early on. If the Proposed Action is carried forward, the Port would continue to provide for involvement of the GHCC in potential future plans for development of the area. Past communications between the Port, the Army, and the GHCC have addressed the possibility of a buffer zone between the neighborhood and any potential future development of the WAPTF property by the Port (RAB, 1999). The buffer area along the UBA portion of the site would continue to be a part of future development plans the Port may pursue. Therefore the cohesion and character of the Government Hill neighborhood would not be impacted by the conveyance of the property from the Army to the Port. The concepts of the buffer zone and related issues are analyzed in greater detail in Sections 3.11 and 3.12.

Alternative 2: No Action

Alternative 2 would preserve the status quo. The WAPTF property would remain as Army land, and USARAK would continue to be financially responsible for the ongoing environmental stewardship of the site.

3.4.6 Air Quality

The Clean Air Act (CAA) authorizes the EPA to establish National Ambient Air Quality Standards (NAAQS). Based on measured ambient data for criteria pollutants, the EPA

designates all areas of the United States as having air quality either better than (attainment) or worse than (nonattainment) the NAAQS. The CAA requires each state to develop a State Implementation Plan (SIP) which serves as its primary mechanism for ensuring that the NAAQS are achieved and maintained within that state. The State of Alaska implements regulations, based on federal standards, to control sources of criteria pollutants. The six criteria pollutants are ozone, carbon monoxide (CO), nitrogen oxide (NO_x), sulfur dioxide (SO_2), inhaleable particulate matter (PM_{10}), and lead. CO and PM_{10} are specific pollutants of concern for Alaskan communities. The CAA stipulates that federal actions in nonattainment and maintenance areas may not hinder future attainment with the NAAQS and conformance to the applicable SIP.

Affected Environment

The WAPTF property lies approximately 1.5 to 2 miles north of downtown Anchorage, within the Anchorage Bowl. Anchorage enjoys relatively good air quality, with levels of most pollutant emissions within required standards. The MOA has, however, historically had pollution problems with CO during the winter months. CO results from the incomplete combustion of fossil fuels. In Anchorage, like many urban areas, cars and trucks form the predominant sources of CO emissions, contributing 75 percent of the annual CO inventory (MOA, 2001). The climate and topography of the Anchorage Bowl has further exacerbated this problem. However, according to the January, 2004 amendment to Alaska's SIP (ADEC, 2004), Anchorage has made progress and has not violated the NAAQS since 1996. The former CO nonattainment boundary in Anchorage has become a maintenance boundary. The Anchorage area CO maintenance boundary is shown in Figure 6. This area includes downtown Anchorage, Anchorage International Airport, and locations as far south as O'Malley Road and as far east as Muldoon Road. The WAPTF property and the adjacent Port fall outside of the maintenance boundary.

The Port contributes relatively limited amounts of emissions to the environment. Activities associated with road and rail functions at the Port that produce emissions consist primarily of diesel truck and other vehicle traffic. These trucks, hostler trucks, other vehicles, and loading/unloading equipment are used for transporting personnel and cargoes to and from the Port. Semi-tractor trailer traffic represents the greatest contributor of emissions, since it generates the most numerous inbound and outbound trips at the Port (VZM, 1996). With an emission rate of 94 grams of CO per hour (EPA, 1998), Port truck traffic generates only about seven tons of CO per year. In comparison, the total annual CO emissions for Anchorage have previously exceeded 123,000 tons. The Port traffic, therefore, has historically contributed approximately 0.006 percent of Anchorage's total CO (ICRC, 2004).

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

The Proposed Action would cause short-term, minor air quality impacts resulting from the planned grading, drainage, and paving improvements and the construction of the

administrative office building, as described in Section 2.2.1. The impacts would be temporary construction emissions only, and would result from the use of appropriate construction equipment. Construction emissions associated with the proposed action include fugitive dust commonly resulting from construction work, as well as combustion byproducts. Combustion emissions would primarily include CO and NOx, and smaller amounts of VOCs, SO_2, and PM_{10} from heavy-duty diesel construction equipment exhaust. Table 4 lists the potential sources of air pollutants and their estimated emissions levels over the course of the construction work: The planned improvements would likely be completed in one month in the case of the grading and paving near security Checkpoint 3. The air quality impacts for the administrative office building project would likely stretch intermittently over a period of approximately sixteen months.

TABLE 4

POTENTIAL SOURCES OF AIR POLLUTANTS
and ESTIMATED POLLUTANT EMISSIONS (pounds/month)

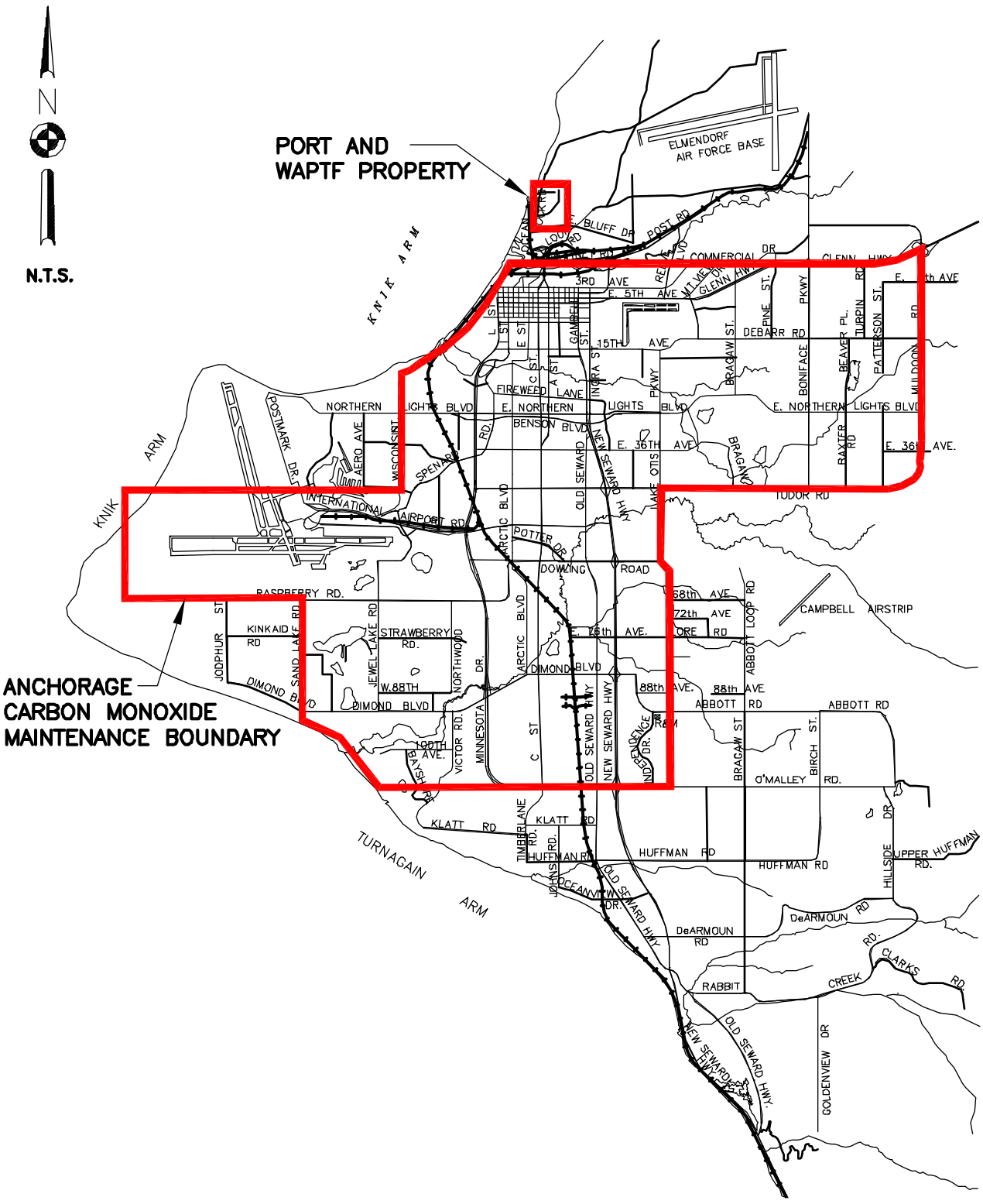
Source of Air Pollutants	CO	NO_X	VOCs	SO_2	PM_{10}
Diesel Rubber-tired Loader	47.1	112.8	8.5	14.8	8.4
Diesel Excavator	35.8	98.7	7.4	15.1	7.4
Diesel Dumper/Tender	6.3	5.5	1.7	0.7	1.1
Diesel Paver	18.8	34.6	3.5	4.7	3.4
Diesel Compacting Roller	21.1	40.2	3.8	5.8	3.9
Diesel Off-highway Trucks	257.7	760.9	45.0	102.5	43.4
Diesel Cranes	26.4	105.3	7.4	13.2	6.0
Diesel Air Compressors	13.9	31.4	3.4	4.2	3.0

Source: Default national average outputs from USEPA NONROAD2005 emissions inventory model for 2006.

Total annual emissions for Anchorage are typically measured in tons per year, and can easily reach into many thousands or even tens of thousands of tons per year. The quantities presented in Table 4, presented in pounds per month, therefore represent a negligible fraction of the total annual emissions for the Anchorage area.

Alternative 2: No Action

Under the No Action Alternative, the WAPTF property would not be transferred to the Port. No additional impacts to air quality would result from this alternative.



WHITTIER–ANCHORAGE PIPELINE TANK FARM PROPERTY

FIGURE 6
ANCHORAGE CARBON MONOXIDE MAINTENANCE BOUNDARY

3.4.7 Noise

Noise is usually defined as unwanted sound, and it is recognized as an environmental pollutant. Noise can produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. Sound intensity is measured in units called decibels (dB). The dB system of measuring sound provides a simplified relationship between the physical intensity of sound and its perceived loudness to the human ear. The dB scale is logarithmic; therefore, sound intensity increases or decreases exponentially with each dB of change. For example, 10-dB yields a sound level 10 times more intense than 1-dB, while a 20-dB level equates to 100 times more intense, and a 30-dB level is 1,000 times more intense. When the basic dB unit is adjusted to correct for the relative frequency response of the human ear, the unit is referred to as the "A-weighted" decibel (dBA) (ICRC, 2004).

Affected Environment

The WAPTF property is located adjacent to the Port, which is an industrial area. Vehicles including tractor-trailers, hostler trucks, and fork lifts represent the primary noise sources from the Port currently affecting the property and surrounding area. The other primary source of noise in the area is low-flying military aircraft departing and arriving at EAFB immediately to the north and east. The WAPTF property lies within an area bounded primarily by military lands, including EAFB, and the industrial activities of the Port. The nearest residential area consists of the Government Hill community. This residential area occupies a bluff well above the surface of the Port, and is separated by distance (approximately 1.5 miles) from the aircraft runway at EAFB. Military aircraft noise currently dominates the noise environment, followed by the lower level noise from Port operations.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

The Proposed Action would result in the transfer of the WAPTF property from the Army to the Port. The transfer would have no impact to existing noise levels in the area. Temporary noise impacts would, however, result from the planned grading, drainage, and paving improvements east of security Checkpoint 3, as well as the construction of the administrative office building and associated facilities. Actual construction in these areas would span a time period of one month or less for the paving, drainage, and grading near security Checkpoint 3, and approximately sixteen months for the administrative office building project. Noise from construction activity varies with the types of equipment used and the duration of use. During operation, heavy equipment and other construction activities generate noise levels ranging typically from 70 to 90+ dBA at a distance of 50 feet (EPA, 1971). Given the fact that noise levels attenuate with distance, and that use of heavy equipment commonly occurs only sporadically throughout the daytime hours, noise impacts would remain minor. Therefore noise generated by continued military aircraft operations at EAFB, and noise from existing Port operations, would continue to

dominate the noise environment of the WAPTF property and the nearby community of Government Hill.

Alternative 2: No Action

Under Alternative 2, no change would occur in the existing noise environment of the WAPTF property and surrounding area.

3.4.8 Public Access

Public access represents the opportunity for members of the general public to access non-privately held lands and facilities for the purposes of conducting business, transiting, or recreating. The events of September 11, 2001 changed the way public access was viewed and enforced in the United States.

Affected Environment

The WAPTF property lies adjacent to the Port and EAFB, and just to the north of the community of Government Hill. The former two facilities are public facilities that, due to security precautions, are not openly accessible to the general public. The Government Hill neighborhood is openly accessible to pedestrian and vehicular traffic. Access to the WAPTF property is currently restricted, by means of gates and fencing, to authorized personnel only (Figure 7). This is for reasons of both security and hazardous contamination concerns (see Section 3.6).

Figure 7: Security fencing currently in place along Bluff Drive – February, 2006.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

The Proposed Action would transfer from the Army to the Port both ownership of, and responsibility for access to, the WAPTF property. The initial property transfer would have no impact on public access to the site. However, conceptual plans for potential future Port expansion on the WAPTF property include the construction of Port administrative offices and associated parking and access facilities, as described in Section 2.2.1. As currently envisioned, the new Port administrative complex would provide for secure access from the Port side, but notably would also provide public access from the Bluff Road side. The latter access would represent the first time since the events of 2001 that the public would have open access to the Port Administrative offices without the hindrance of gates, security kiosks, and identification badges. More direct and open public access to a public facility would be a beneficial impact resulting from the transfer of the WAPTF property.

The idea of a "buffer zone" situated along the UBA functional area of the site is also part of conceptual plans that the Port has for the WAPTF property. This zone would serve to separate the Port administrative offices from the adjacent community of Government Hill.

Alternative 2: No Action

The No Action alternative would not cause any change to the existing level of public access to the WAPTF property. The area would remain under the ownership of USARAK, and existing fencing and gates would remain in place for the foreseeable future.

3.4.9 Visual Resources

Visual resources concern the qualitative aspects of the visual environment in a given area. The focus of this section is to identify visual resources that exist in the vicinity of the Proposed Action, and to assess if or how they may be impacted.

Affected Environment

The WAPTF property is located between the industrial lands of the Port to the north and the residential community of Government Hill to the south. In this case the affected environment concerns the view shed currently enjoyed by the residents of the Government Hill neighborhood. From Bluff Drive, which separates the WAPTF property from the neighborhood, there is currently an unbroken view to the north and west. This view shed includes the Port in the foreground, Knik Arm beyond and, on a clear day, views of the Alaska Range (Figure 8).

Figure 8: View shed from Bluff Drive – February, 2006.

The topography of the WAPTF property is such that most of the site slopes away from Bluff Drive. There is currently no development on the site that inhibits the view shed enjoyed from above.

Environmental Consequences

Alternative 1: Proposed Action - Transfer WAPTF Property to the Port of Anchorage

Under Alternative 1, there would be moderate but limited effect on the view shed currently enjoyed from Bluff Drive. Transfer of the WAPTF property ownership to the Port would trigger limited improvements on the lowest portion of the site (the FTFA), as discussed in Section 2.2.1. This area and its improvements are topographically separated from the upper portions of the site, as well as from Bluff Drive. The improvements would have limited impact to the view shed from Government Hill.

Other future plans for Port expansion on the WAPTF property would include the construction of the Port office building and related facilities, as described in Section 2.2.1. The office building would be located on the sloping middle portion of the property, the SDA, thereby minimizing visual impact from Bluff Road. Additional visual impact would be realized, however, from the placement of paved parking areas on the flat bluff area (the UBA) adjacent to Bluff Road. These parking areas would facilitate open public access to the Port offices. In their overall plan for development of the administrative office building and related facilities, the Port intends to minimize visual disturbance, as viewed from Bluff Drive, to the greatest extent possible.

Alternative 2: No Action

Under Alternative 2, the status quo would remain. The WAPTF property would remain in the hands of the Army, and no impacts would occur to the existing view shed enjoyed from Bluff Drive.